

PENNSTATE



# The XL30 ESEM Scanning Electron Microscope

*at the Department of Engineering  
Science and Mechanics*



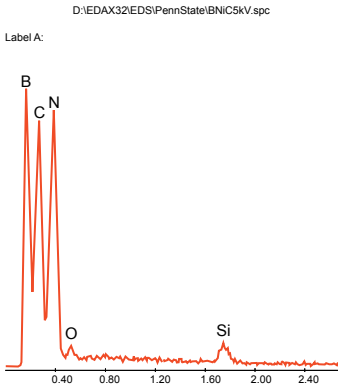
**PHILIPS**



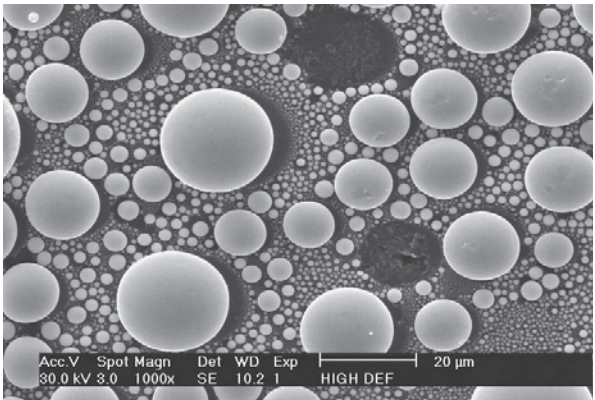
The Philips XL30 is a state of the art microscope that offers a wide range of user selections for KV, magnification and detector type.

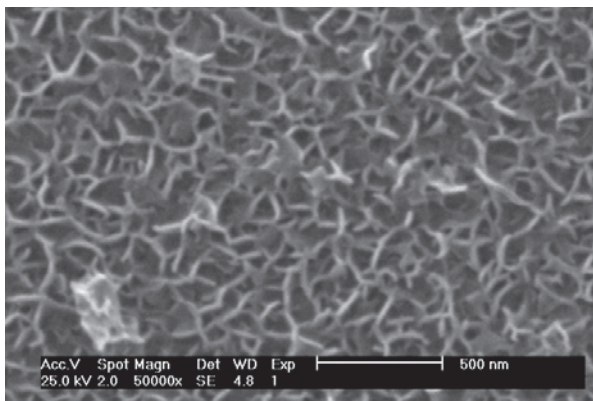
## General capabilities

- **Wide range of magnification**
- **EDAX X-ray system**
- **Imaging of non-conductive or even wet samples**
- **Light element analysis, such as oxygen and carbon**
- **Excellent resolution over wide depth of field**



Tin deposited on carbon film





50,000x magnification

**T**his ESEM is the universal solution for a wide variety of applications such as life science, bio-engineering and material science and engineering.

### **Basic detection modes**

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- **Secondary electron**
- **Backscattered electron for variable pressure**
- **Gaseous secondary electron**
- **Light element analysis, such as oxygen and carbon**

### **Software features**

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- **Windows interface**
- **High definition image storage**
- **Image annotation and measurement enhanced graphics**
- **Fast processing with recursive filtering, integration and averaging and much more**
- **Save images on CD recordable or Zip Disk™**

## Scheduling and training

- Sample preparation assistance
- Hands-on training with expert microscopist
- Available to students, researchers, faculty
- 24 hour access for advanced users
- Easy to use, web-based scheduling (below) with calendar and timeline

Go to [www.esm.psu.edu/ese](http://www.esm.psu.edu/ese) to sched-

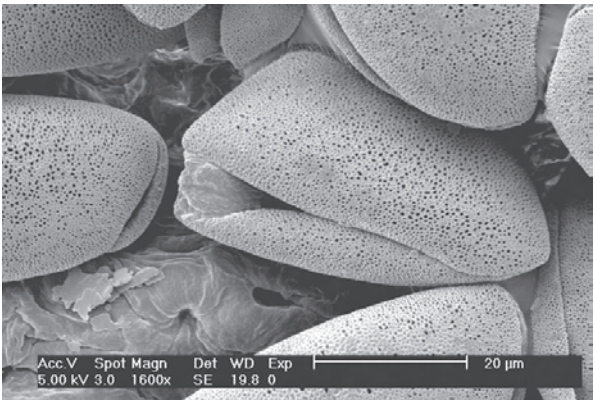
The screenshot shows the 'Engineering Science and Mechanics SEM Scheduler' web page. At the top, it says 'to set up an account to schedule time on the ESM SEM, please contact [Scott Kralik](#)'. Below this is a calendar for June 2003. The calendar shows dates from 1 to 30. A yellow box highlights the date '17'. Below the calendar is a 'Book' button. At the bottom of the screenshot, there is a timeline view showing time slots from 8:00am to 5:00pm. The timeline shows 'Book' slots for the dates 17, 18, 19, and 20.

Now with

**Genesis**

- *better user experience*
- *faster mapping/quant*

Pollen grains: excellent resolution at low keV



**W**ith as little as four hours of initial training, you can begin to produce professional images, suitable for research or publication.

The Engineering Science and Mechanics Department has expert staff, a convenient schedule and high-availability, so you'll be able to get your work done—on budget and on time.

Use direct billing to your PSU budget.

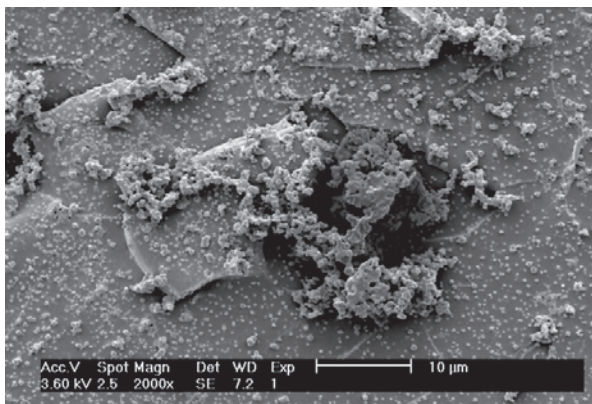
The ESEM is also affordable.

### ***Current Internal Rates:***

- **ESEM**      \$33 per hour
- **Operator**   \$30 per hour
- **Training**   \$30 per hour



### Polymer Composite



# Get started today!

For more information,  
contact Scott Kralik at  
[esem@mail.esm.psu.edu](mailto:esem@mail.esm.psu.edu)  
or visit our web site at  
<http://www.esm.psu.edu/esem>

***The Engineering Science and Mechanics  
Department is located on West Campus  
off White Course Drive.***

***The ESEM lab is located in room 103 of the Earth  
and Engineering Sciences Building.***

